Title : Eco-scented Jewelry Production

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Major : Gemology

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ABSTRACT

The project, Eco-Scented Jewelry Production from Sustainable Materials, aims to create jewelries from recycled materials by focusing on transforming plastic bottle caps into value-added products with aesthetic appeal and practical utility. In addition, the designedjewelry serves as functional fragrance jewelry that capable of retaining and diffusing aroma from Himalayan salt, which helps promote relaxation for the wearer. Furthermore, this project intends to create a product prototype with potential for commercial development by studying production costs, manufacturing processes, and user satisfaction. The project methodology was divided into four phases. Phase 1 involved preparation and production planning, including cost analysis, prototype design, and mold fabrication. The design processes began with creating digital prototypes using 3D modeling software, followed by making silicone molds. Plastic bottle caps were sliced and prepared as the primary material for producing jewelry pendants. Phase 2 focused on production. Pendants and decorative components (charms) were created by compressed plastic bottle capinto silicone molds according to the designed models, including; star

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and clover motifs, which symbolize hope and positive energy. Additionally, ten different charm styles were designed to allow users to customize the jewelry according to their preferences. The finalproducts including necklaces and bracelets designed for practical use and to meet the needs of environmentally conscious consumers. The products were then verified for user satisfaction through Google Forms questionnaires (in progress). Phase 4, consisted of data analysis and conclusion to assess product suitability and future development potential. The results of the project demonstrate that plastic bottle caps can be successfully transformed into aesthetically pleasing and functional jewelry. This process not only adds value to waste materials but also promotes environmental sustainability. Moreover, the developed products are potentially commercializationand can be a guideline for creating sustainable jewelry that is in trendswith modern consumer trends.

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Title name guide.

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Major name guide.

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Microbiology	จุลชีววิทยา
Zoology	สัตววิทยา
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Chemistry	เคมี
Industrial Chemistry	เคมีอุตสาหกรรม
Materials Science	วัสดุศาสตร์
Physics	ฟิสิกส์
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